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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,954	03/19/2002	Kazuhisa Mori	500.41483X00	6337

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EXAMINER

LAXTON, GARY L

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 01/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/099,954	Applicant(s) MORI ET AL.	
	Examiner Gary L. Laxton	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15 and 18-20 is/are allowed.
- 6) ☒ Claim(s) 16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/06/03 concerning claim 16 have been fully considered but they are not persuasive.

In regards to claim 16, applicant argues that Koichi does not disclose that the control signal line crosses in the vicinity of an end of an area of said main circuit wiring where said main circuit current flows. The examiner respectfully disagrees, Koichi does disclose the control signal line crosses in the vicinity of an end of an area of the main circuit wiring (see figure 7: control line 14).

In regards to claim 17, applicant argues that Koichi does not disclose the effect of the main circuit current on the control signal line is relaxed and a malfunction of the semiconductor switching device can be prevented. Koichi teaches that the circuit operates to prevent the influence of the gate signal by the main circuit (see the purpose and constitution of Koichi page 1 of the reference). Therefore, Koichi is teaching that the effect of the main circuit current on the control signal line is relaxed or not influenced by the main circuit and a malfunction of the semiconductor switching device can therefore, be prevented.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16 and 17 rejected under 35 U.S.C. 102(b) as being anticipated by Koichi (JP7170723).

Concerning claims 16 and 18, Koichi discloses a power converter comprising: a semiconductor circuit including a semiconductor switching device (figures 1-7: 1 or 2) having a main terminal and a control terminal; a main circuit wiring (4, 5, 6) including a plurality of tabular conductors arranged at least in partially superposed relation to each other (4, 5, 6) the main circuit current of the semiconductor circuit flowing in the main circuit wiring; and a control signal line (14), that crosses in the vicinity of an end of an area of the main circuit wiring, for supplying a control signal to the control terminal of the semiconductor switching device; wherein the control signal line (14) crosses an end of an area of the main circuit wiring where the main circuit current flows and the plurality of said tabular conductors are in superposed relation to each other (figure 2 or 7), between the side of the main circuit wiring (4, 5, 6) where the semiconductor switching device (1 or 2) is located and the opposite side of the main circuit wiring (figure 2 or 7). Koichi discloses that the effect of the main circuit current on the control signal line is relaxed or not influenced by the main circuit and a malfunction of the semiconductor switching device can therefore, be prevented (see the purpose and constitution of Koichi page 1 of the reference).

Allowable Subject Matter

4. Claims 1-15 and 18-20 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:

Concerning claims 1-11, 13 and 14; the reasons for allowance were stated in the previous office action dated 7/11/2003.

Concerning claims 12, 15 and 18-20; prior art fails to disclose or suggest, inter alia, a power converter wherein a respective junction between each of a first and second control signal lines and the circuit portion of a semiconductor circuit is covered by selected one of an area of a main circuit wiring where a main circuit current flows and a plurality of tabular conductors are in superposed relation to each other and an area of the main circuit wiring where the main circuit current does not flow.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

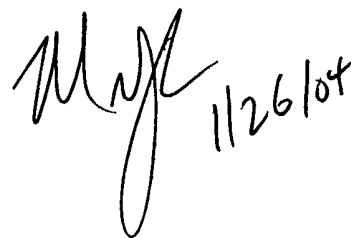
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Laxton whose telephone number is (703) 305-7039. The examiner can normally be reached on Monday thru Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (703)308-1680. The fax phone number for the organization where this application or proceeding is assigned is (703)-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



MICHAEL SHERRY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Gary L. Laxton
Patent Examiner
Art Unit 2838